

## CLIMATE & ECONOMIC DEVELOPMENT PROJECT SOUTHERN CALIFORNIA



<http://cedp.scag.ca.gov>

### DRAFT Southern California Association of Governments Catalog of Transportation Land Use (TLU) GHG Reduction Policy Options

A catalog of greenhouse gas (GHG)–reducing actions and policy options based on actions undertaken or considered in climate change action plans by multi-stakeholder groups in a wide cross-section of U.S. states and by state, local, and private participants.

#### Key to Nominal Rankings of Options in the Tables That Follow:

Potential GHG Emission Reductions <sup>1</sup>	Potential Cost or Cost Savings <sup>1, 2</sup>
<b>High (H):</b> At least 1.0 million metric tons (MMt) carbon dioxide equivalent (CO <sub>2</sub> e) per year by 2030	<b>High (H):</b> \$100 per metric ton CO <sub>2</sub> e (tCO <sub>2</sub> e) or above
<b>Medium (M):</b> From 0.1 to 1.0 MMtCO <sub>2</sub> e per year by 2030	<b>Medium (M):</b> \$0 to \$100/tCO <sub>2</sub> e
<b>Low (L):</b> Less than 0.1 MMtCO <sub>2</sub> e per year by 2030	<b>Low (L):</b> Less than \$0/tCO <sub>2</sub> e
<b>Uncertain (U):</b> Insufficient information to estimate at this time	<b>Uncertain (U):</b> Insufficient information to estimate at this time
<sup>1</sup> Several measures may overlap in terms of emissions reductions and/or cost impacts. “Stand-Alone” estimates provide values for measures that would be implemented independently of other measures, before accounting for potential overlap or synergies	
<sup>2</sup> Costs are denoted by a positive number. Cost savings (i.e., “negative costs”) are denoted by a negative number.	

#### Definition of “Priorities for Analysis”:

- **High:** High-priority options will be analyzed first.
- **Medium:** Medium-priority options will be analyzed next, time and resources permitting.
- **Low:** Low-priority options will be analyzed last, time and resources permitting.

***Important Note: The actions are numbered in this catalog solely for convenience in referencing them.  
Their numbers do NOT reflect a ranking or prioritization of the actions.***

## Integrated Transportation Land Use (ITLU)

*Note that this listing will be developed more fully during the TLU TWG process. TWG members are encouraged to provide input on policies and programs currently in place to assist in defining baseline conditions. The “Notes” column may be used to record recently enacted policies and programs.*

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
<b>TLU-1. PRIORITY GROWTH CENTERS</b>						
1.1	Infill Redevelopment					
1.2	Transit-Oriented Development					
1.3	Brownfield Redevelopment					
1.4	Station Area Planning Requirements					
1.5	Downtown Revitalization					
1.6	Targeted Density for Priority Growth Centers					
1.7	Support revitalization of older, densely settled urban areas					
1.8	Support compact, mixed-use centers in older developed suburban areas					
1.9	Live-work buildings and multi-use buildings					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
1.10	Urban Growth Boundary					
1.11	Location and Timing of Urban Development					
1.12	Urban Service Lines					
1.13	Urban-Rural Transition Zones					
1.14	Mixed-Use Development					
1.15	Allowable Building Heights					
1.16	Prototype Adaptive Use Buildings					
1.17	Employer-Assisted Housing					
1.18	Services Near Employment Centers					
1.19	Transit-Oriented Mixed-use					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
1.20	Flexible Parking & Building Height					
1.21	Transit-oriented Brownfield Development					
1.22	Density Near Activity Centers					
1.23	Density Near Transit Routes					
1.24	Links to Transit Stops					
1.25	Affordable Housing					
1.26	System Interconnectivity					
1.27	Employment Density					
1.28	Mixed-income, Market-rate Housing					
1.29	Re-use and Redevelop Alleyways					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
1.30	Link Job Centers and Housing					
1.31	Livable Boulevards					
1.32	Commercial Corridor Redevelopment					
1.33	Commercial Mixed-Use Redevelopment					
1.34	Reinvestment in Employment Areas					
1.35	Traffic Calming					
1.36	Reforms to Incentivize Development in Priority Growth Areas					
1.37	Transportation Demand Management Policies					
<b>TLU-2 LAND USE PLANNING MEASURES</b>						
2.1	Smart Growth Planning, Modeling, and Tools					
2.2	Targeted Open-Space and Natural Resource Protection					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
2.3	"Fix-It-First" and Location-Efficient Funding Strategies					
2.4	Land Use and Building Code Reform					
2.5	Location-efficient mortgage					
2.6	Targeted infrastructure investment section toward priority growth centers					
2.7	Zoning reform measures					
2.8	Support natural resource conservation in outlying areas.					
2.9	Flexible Development Standards					
2.10	Housing Overlay Zone					
2.11	Rezone to Allow Mixed Use					
2.12	Expand Zoning for Multi-Family Housing					
2.13	Public Transit Development Focus					
2.14	City-oriented Corridors					
2.15	Transit-oriented Development Design Standards					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
2.16	Design Short Walk to Center					
2.17	Increase Density Towards Center					
2.18	Direct Business Space to Center					
2.19	Locate Schools with Safe Routes					
2.20	Location of Driveways					
2.21	Street Parking as Buffer					
2.22	Planting Trees for Shade					
2.23	Replace Hardscape with Low-Water Landscape					
2.24	Xeriscaping					
2.25	"Complete Streets" Policies					
2.26	Develop Green Alley Program					
2.27	Neighborhood Interconnectivity					
2.28	Site Planning and Design Strategies to Promote Walking, Bicycling, and Transit Use					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
2.29	Location of Public Facilities					
2.30	Location of Subsidized Housing					
2.31	Parking Near Transit					
2.32	Alternative Transportation Information					
<b>TLU 3 LOCAL CODE DEVELOPMENT, ENHANCEMENT, AND ENFORCEMENT</b>						
3.1	Emphasize local authority to require low impact development					
3.2	Assess climate impacts of development					
3.3	Streamlining development projects that reduce VMT, energy consumption, transportation impact.					
3.4	Develop model green development and green building laws for local governments to adapt and adopt					
3.5	Assessment of regional impact development projects for climate mitigation					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
3.6	Enhance energy efficiency code enforcement and development					
3.7	Prepare model components to add to plans regarding transit station area plans and energy conservation					
3.8	Ensure local enforcement of the state energy code					
3.9	Prepare model energy code enhancement provisions for local adoption					
3.10	Transferable development rights (TDRs)					
3.11	Supportive Pre-planning					
3.12	Amend Code to Promote Transit-Oriented Mixed-use					
3.13	Equal Pedestrian Access					
3.14	Zones and Codes for Live-Work					
3.15	Require TOD through the TRP					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
3.16	Parking TIFs					
3.17	Reform Public Finance System					
3.18	Analyze Parking Supply and Demand					
3.19	Parking Management Strategies					
3.20	Development Density and Floor Area Minimums					
<b>TLU-4 INCENTIVE AND DISINCENTIVE PROGRAMS</b>						
4.1	Develop incentives to encourage the reuse of already developed properties, regardless of ownership, before developing natural areas					
4.2	Preserve & manage open space in hillsides and water spreading grounds					
4.3	Develop an awards program for preservation of open space & ecological benefits					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
4.4	Use plants from local gene pool in local projects adjacent to natural open spaces					
4.5	Develop a species list of water wise and ecologically friendly plants for use in new development and other landscape projects					
4.6	Provide incentives for development projects that include significant natural or constructed open space					
4.7	Provide an extensive and safe system for walking and hiking that links areas					
4.8	Density Bonus Programs					
4.9	Discourage Auto-oriented Development					
4.10	Developer Fees					
4.11	Reduce Fees for Brownfield Development					
4.12	Public Involvement					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
4.13	Perception of Public Safety					
4.14	Focus on Reducing Cost of Development					
4.15	Value Capture Strategies					
4.16	Encourage Real Estate Market to Focus on Less Developed Transit Stations					
4.17	MTA Joint Development Program					
4.18	LEED Incentives					
<b>TLU-5 LOCAL GOVERNMENT INCENTIVES TO PROMOTE ALTERNATIVE FUEL USE</b>						
5.1	Zoning Ordinances to Promote Alternative Vehicles					
5.2	Policies that Accelerate Vehicle Fleet Mix					
<b>TLU-6 CROSS-CUTTING ISSUES IN TRANSPORTATION AND LAND USE ((FUNDING, EDUCATION AND OUTREACH)</b>						
6.1	Bicycle Initiatives					

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6.2	First Mile/Last Mile Connections on the Web					
6.3	First Mile/Last Mile Bike, Pedestrian and Circulator Connections					
6.4	School Siting					
6.5	Mixed-Income Housing Funding					
6.6	Job-Housing Fit					
6.7	Transit Funding					
6.8	Fund Rehabilitation of Housing Stock					
6.9	Incentivize Consolidation of Small Lots					
6.10	Funding for Infrastructure to Support Infill and TOD					
6.11	Funding for Local Planning					
6.12	Improve Public School in Priority Infill Neighborhoods					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
6.13	Address Barriers to Infill, Compact and TOD Development					
6.14	Permanent Funding Sources for Affordable Housing					
6.15	Affordable Housing Funds Targeted to Station Areas					
6.16	Create Land Banking and Land Acquisition Funds					
6.17	Condition Transportation Investment on Housing Density					

### Acronyms

ASTM = American Society of Testing Materials  
 ATVs = all-terrain vehicles  
 B2 = fuel mixture of 2% biodiesel and 98% gasoline  
 BRT = Bus Rapid Transit  
 CCI = Cross-Cutting Issues  
 CO<sub>2</sub> = carbon dioxide  
 CMAQ = Congestion Management and Air Quality  
 DOT = Department of Transportation  
 E10 = fuel mixture of 10% ethanol and 90% gasoline  
 EPA = U.S. Environmental Protection Agency  
 GHG = greenhouse gas  
 HOV = high-occupancy vehicles  
 LCF = low-carbon fuel  
 LRT = light rail transit

LEED = Leadership in Energy and Environmental Design

MPG = miles per gallon

MPO = metropolitan planning organization

R&D = research and development

RFS = renewable fuel standard

SLR = sea level rise

TIF = tax increment financing

TDRs = transferable development rights

TRU = truck refrigeration unit

TWG = Technical Work Group

VMT = vehicle miles traveled.